

DEVELOPING SOUTHERN UTAH AND NEVADA

taining the precious elements related, will be as certain as the action of the mill that transforms the wheat crop of the farmer into the flour that forms a staple article of commerce.

Royal's Natural Advantages.

There are some natural advantages in connection with the workings of the Royal that should not be overlooked.

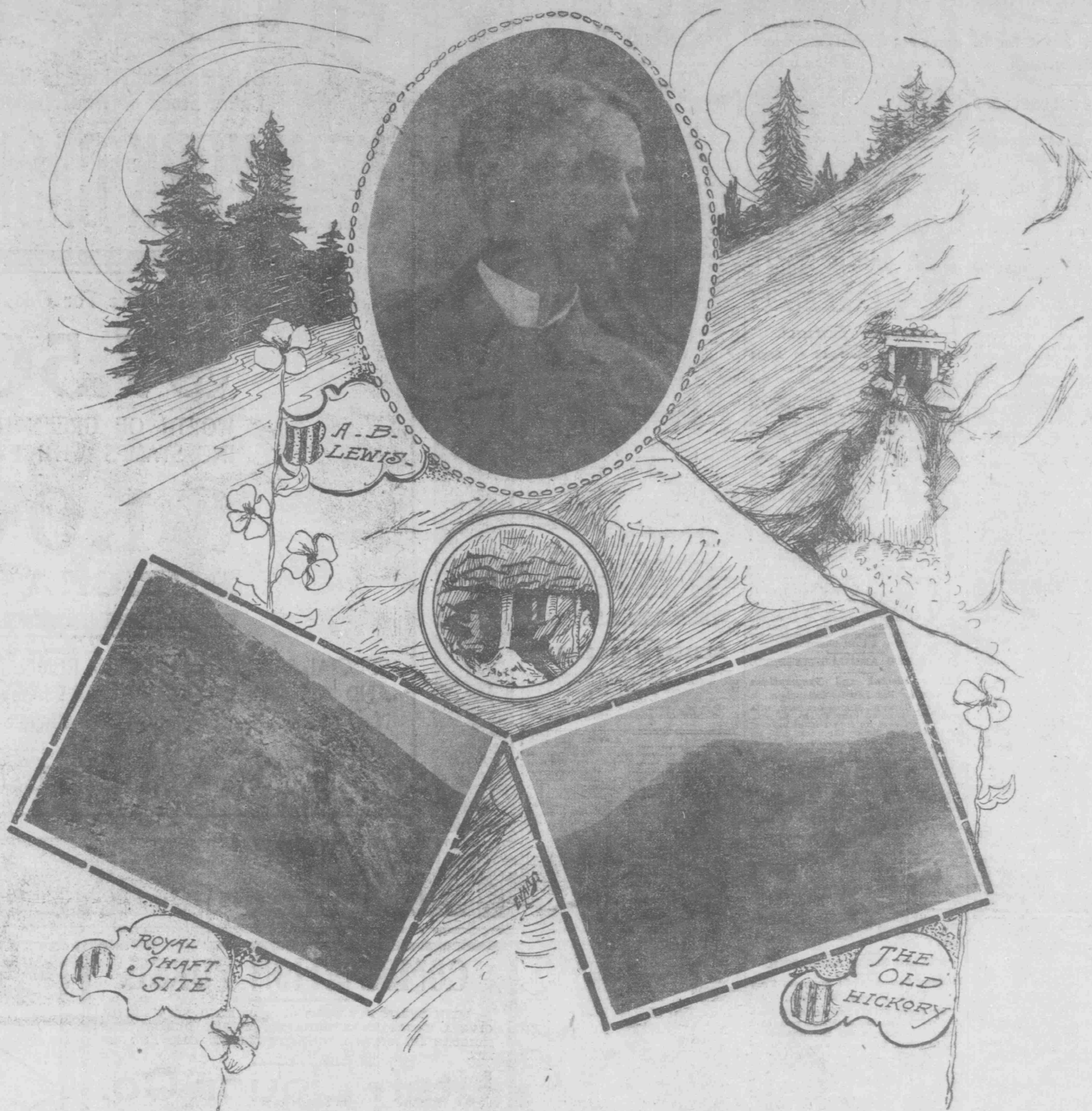
This property, royal both in name and in fact, has furnished the means that have contributed to some of the most important items in Utah's history. The Rebel group of three claims, adjoining the Harrington and Hickory group, has produced over a quarter of a million dollars. It is a silver-lead proposition, the lead running to 65 per cent, and the silver over 40 ounces to the ton. It was at its height about the Centennial year. Messrs. Matthew Cullen and Dennis Ryan sold this property and afterwards, with the proceeds, purchased the great Horn Silver mine, from which was derived the money that erected the Cullen hotel, in Salt Lake, and the much greater hostelry, the Ryan, in St. Paul, Minn.—a building of national repute, which has done more to advertise the middle northwest than any other building in that territory. The Horn Silver was sold by this combination to Jay Cooke, and has, during its history, produced the almost inconceivable amount of forty millions of dollars, which entitles it to the distinction of the king of Utah's producers. By way of digression, it is interesting, but not patent, in this connection, to state that the Horn Silver is taking on new life, and after several years of inactivity, and is again becoming a substantial producer of wealth, and is contributing to the second life of this remarkable country.

The Montreal.

The Montreal group, before mentioned, is situated a short distance, measured by four or five miles, from Milford, and is reached by a spur from Hickory station on the railroad, making the extraction of its ores certain at a minimum cost. Outside of the wonderful values in the precious metals which it has produced, and can continue to produce, without doubt, there are two strong factors that should not be overlooked. The first is iron, which is found in large quantities and in wonderful richness. From these iron deposits have been taken thousands of tons which were used as fluxes at the old Horn Silver smelter. The iron averages about 60 per cent in that metal, and resembles and approaches the ore found in Iron mountain, at Pilot Knob, Mo. Then on this territory are found also deposits of lime, the purity of which is tainted only by the presence of copper, silver and gold. From these deposits numerous shipments have been made and the values exceed 2 per cent in copper, with about \$2 in silver and gold. They are practically self-fluxing, the lime being so pure that it is translucent. From this part of the grounds much higher values than those given have been taken. At one place this lime ledge is over 400 feet wide, but until recently, when modern methods of reduction have prevailed, they were useless. A part of this ground is a veritable mountain of copper, as shown by an accompanying illustration. Here Nature seems to have been exceedingly lavish, in distributing the red metal in combination such as to invite the attention of smelter men.

Red Warrior Group.

Situated ten miles to the southwest is the Red Warrior group, with a record of production measured by \$300,000 in silver and lead. The Atlas and Monitor group of twelve claims is a nearby neighbor, in which the deepest work in the country has been done, excepting only that in the Horn Silver. Its future promises to exceed the past, which has been characterized by profit-earning. Just west of this group are the Nellie and Beacon claims, from which \$50,000 has been taken. On the Beacon property, below the silver and lead ores a twenty-two-foot ledge of 8 per cent copper has been exposed. To the north of this property is the Lady Bryan and Star Mountain lodes, eighty acres in extent, all of which is patented, and on which development work, to the extent of 5,000 feet, has been accomplished, and from which shipments that have given good profits have been made. In the same vicinity are the Wild Bill and Burning Moscow holdings, with a combined record of over \$200,000 to their credit and on which a large tonnage of silver and lead ores are now waiting reduction. In fact, the properties of this company, all through the list, have been tried and none of them found wanting. Milford, and its vicinity, is a fortunate location for smelter work, both by reason of the proximity to a practically unlimited amount of ores, and the presence of water, which is obtained from artesian wells of shallow depth—a condition not found elsewhere in that country. The recent work of the majestic smelter at Milford, which included its initial run, was decidedly satisfactory and bore out the predictions of the most enthusiastic promoters in that camp. The ore yields readily to the common methods of reduction, and the values obtained exceed the estimates made from assays in sampling the various mines. A noteworthy occurrence is the surface showings found on the Old Hickory grounds, adjacent to and just south of the Montreal property. On the side of the hill, reaching



from its apex to the bottom of the gulch, over 100 excavations of varying depth have been made, and all of them are in ore. On the north side of the gulch, where lies the Montreal property, while the development is less extensive, the surface showings are equally as good. This Royal property is all situated within from ten to twelve miles of Milford, so that transportation charges will not be a bar to their operation. A report from Colonel Farish, recently made, states that from 1,000 to 3,000 tons per day can be taken from this ground, without taxing its resources.

The Imperial Properties.

Leaving Milford vicinity, the work of Mr. Lewis is next encountered in the neighborhood of Frisco, some twenty miles to the west. Here are located the Imperial properties, on which work has been prosecuted within the last two years with results which, in order to be comprehended, should be seen and not described. In the Imperial group are forty-six claims, eight of which are patented, the balance not being incumbered by contests of any nature. The recent and most important work on this group has been centered in a tunnel, now in 1,100 feet, the last sixty-five feet of which has been through copper sulphide ore, as uniform as the soil on a productive farm. From an upper working in this ground much wealth has been taken, and on the surface are probably the most wonderful showings in all Utah, the width of which range from 1,400 to 1,800 feet. A little more than 100 feet of further work, it is estimated, will reach the richer and even greater body of ore than that through which the tunnel has passed, and will also connect with a winze in the old workings and give a circulation to the mine and a cheaper method of extracting its ores. This property is well equipped with buildings and machinery, and is now practically ready for production should the even greater and richer ore bodies contemplated not be found.

Included in the possessions of the Imperial company is doubtless one of the most noted twenty-acre tracts yet discovered by miners through-

out the world. This tract is known as the Comet. In brilliancy its name is not a misnomer, but in point of permanency the word Comet does not apply. This single claim is distinct from the other holdings of the Imperial and its end lines are concurrent with the end lines of the Cactus mine, owned by Samuel Newhouse and which is acknowledged to be one of the rarest and greatest mines on earth. It might be stated here that comparisons, figures and estimates are inadequate to express conditions that exist, generally, in Beaver county, but more particularly does this condition prevail in the Comet and Cactus vicinity.

Sold the Cactus.

The worth of the Cactus was emphasized also by Mr. Lewis, who some two years ago obtained control of that property and afterwards disposed of it to Mr. Newhouse. A description of the Cactus and of the work being done upon and about it, appears in another article in this issue, but as to the Comet itself too much cannot be said. Limited in area and unlimited in wealth, it is without a peer. Its territory is traversed by four distinct and parallel veins, about the apices of which there can be no doubt. Only one of these veins has been explored, but this exploration work has revealed a simple treasure house. At a depth of probably sixty feet the ore carries values measured by over 32 per cent copper. While these astounding values do not continue, the extent of the ore not only does continue, but increases with depth. The ore is a copper sulphide in form, favorable for concentration. At the 100-foot level, on the vein being worked, the ore has been cross-cut for a distance of 150 feet. Mixed with the copper are iron pyrites, mostly crystallized, and at this place the showing is dazzling. The face exposed is dotted with miniature mirrors, revealing the wonderful and accurate work of the World-maker. Viewing this place, one cannot but be impressed with the fact that there is a World-maker, whose work was all done with a design and measured more accurately than is the labor of the watchmaker, whose perfected engine records the passing of

the sun. At the 200-foot level, as far as the work has progressed, the same showings continue. To call the Comet a million dollar property would be a ridiculous underestimation. Unlike the expression of the Queen of Sheba about the wisdom of King Solomon when she exclaimed: "The half has not been told me!" in the case of the Comet, the one-half cannot be told. Should Mr. Lewis, by any of the uncertainties incident to business and so often encountered, lose all of his properties, except the Comet, he would still be entitled to be classed individually as a man of wealth beside Mr. Newhouse, the owner of the Cactus, the Comet's nearest neighbor, and with the other rich men of the country. But a few hundred feet from the shaft on this property the Cactus is down a distance of 600 feet, at which point the ledge is well defined, and the best mining talent, who have examined the ground, estimate that the ore bodies will continue indefinitely to a depth of probably 3,000 feet, or even more. While the water in the Comet is not sufficient to interrupt the work begun, when good pumping appliances are used, yet it is ample for operating a concentrator of almost any dimensions. Viewing the Comet, one cannot but be impressed with the fact that Mother Nature, or the Ruler of the Universe—call the force what you may—has made, up to the present time, a great many more mines than men who are able to discover or develop them. This investigation shows the possibilities of future mining, the extent on which it can be operated and the permanency of its duration.

In all mining there are three elements to be considered—the honesty of the management, the integrity of the management and the merit of the ground. Viewing the next work at the Comet, and its wonderful results, the inspector is convinced that in this instance the man and the mine have met.

The Blackbird.

In this locality is also located the Blackbird property, being developed by Dr. Franklin and his associates with equally encouraging showings. Standing in an isolated community, remote from transportation—which

obstacle, however, will soon be overcome by a railroad for which provision has been made—and separated many miles from any other industry, one cannot help but be convinced that it is one of the rarest and richest places on earth. Ordinarily, in mining, people overestimate the size of the ore bodies and the value of their contents, but in speaking of this vicinity the custom is reversed. Actual values, as determined by the assayer's test, and actual distances obtained by the strong arm of labor, are both above the credulity of the ordinary mind. This place is an unusual one, for either the mining expert or those not at all well versed in mining to examine. It conveys a lesson that words will not impart. It is a place where the doubter cannot help being convinced. This is not poetry, and it should be borne in mind that over a million dollars is now being expended in developing this camp, while the prospects are such that even this vast expenditure will be returned a hundredfold. After describing this camp, words are useless. It can be realized only through the eye, and the things seen are so exaggerated that afterwards one feels that he is being followed by the phantasies of a dream in trying to remember them.

Holdings at Pioche.

Passing this place, for lack of adequate description, the attention of the reader is called to the vicinity of Pioche, Nev., where are situated the holdings of the Manhattan company. This property consists of three groups, all the claims in which were located by Mr. Lewis and E. F. Freudenthal, who still retains a control. The most of these holdings are within four miles of a spur now graded from the Los Angeles railroad, so that the transportation problem will soon be solved. On these properties are found showings truly wonderful. There is a veritable mountain of copper at one place, which increases in value with depth to about 70 per cent. It is also heavy in iron, which will contribute to its value as a smelting proposition. These properties are substantial and not in the least visionary. Work has progressed to a depth at one place

of 300 feet. The ground covers a porphyry dyke which runs through the Yuba, Raymond & Ely and Meadow Valley properties, with a combined record production of \$135,000,000—a convincing array of figures. On the Pioche group has been found a remarkable quality of galena or lead sulphide ore. It approaches chemical purity, carrying 81 per cent lead, while, to make it all the more interesting, it contains 136 ounces of silver to the ton and a few dollars in gold. Samples of this, as large as can be conveniently shipped, are on exhibition at Senator Lewis' office. The ledge from which this ore was taken has been explored to a depth of 230 feet, while the ore streak containing the values mentioned, is only about two feet thick. The copper is found on the Stampede group, while the lead ore occurs on the Pioche group, and several miles away is a cluster of three claims only, belonging to the same combination, and upon which good surface showings appear.

All this property is located in that southern country to which the attention of the public is now directed with much eagerness. Its worth is also being magnified by reason of the construction of the railroad being built through that region from Salt Lake to Los Angeles. Senator Lewis went into this southern country before the railroad extension had been decided upon, and is largely responsible for the resurrection and advertisement of a vast area of ground which contains a wonderful amount of mineral wealth. In this section is found, at different points, coal, iron and all the rarer metals, and its future seems absolutely assured.

While these properties have been developed sufficiently to show their real worth, the future plans for their operation, while not uncertain, are being definitely solved. They have been examined by the best talent obtainable and by the representatives of unlimited capital, all of whom have pronounced them good. Thus far there has been no uncertainty as to the line of work performed and in the near future a number of positive moves for working to the fullest extent the product from these mines is assuredly promised.